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Charles Worthington
Energy and Environmental Program Analyst
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Implementation of Smart Grid Technology
NBP Public Notice #2
GN Docket Nos. 09-47, 09-51, 09-137
DA 09-2017

Dear Mr. Worthington:

On behalf of Sensus USA Inc., attached please find the spreadsheet we discussed showing Latency Bandwidth Requirements for Sensus' FlexNet Smart Grid network. This is being filed in the above referenced docket, and I am sending you a courtesy copy pursuant to your request. Subsequent to our discussions, Sensus released this material to aide in the NIST smart grid standards efforts and therefore no longer claims it as confidential. Sensus believes that the attached is responsive to the first question of the FCC's Notice of Inquiry (NOI) in the above docket.

Briefly summarized, the attached is a pro forma of the time (latency) and bandwidth requirements for the many smart grid applications Sensus is finding that electric utilities currently are requesting. This pro forma spread sheet was developed based on discussions with utility personnel and with various experts on operation of electric distribution systems. The time requirements, of course, vary depending on the use or user of the information. For example, a Fault Current Indication (first line of attached spreadsheet) requires a notification be sent: to the Distribution System Operator within two seconds; to the Outage Manager in four minutes; to Purchasing and the VP of Distribution Operations in one hour; and to various Distribution Managers and Engineers in days. The first user needs the information quickly to take action to identify and ameliorate the problem, while subsequent users generally use the information for post event analysis. The notification signal is a size of 10 bytes. The Fault Current Values (second line of spreadsheet) must be sent to these destinations within the same time frames but requires a larger message of 100 bytes.

The first point, related to this spread sheet, that is relevant to the FCC's NOI is that relatively little bandwidth is required to send the relevant data. The largest message listed on the spreadsheet is 200 bytes with most messages being 10 or 100 bytes.

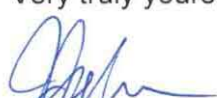
The second point is that time is of the essence in grid management and smart grid messaging. Critical messages must be delivered over long distances within two seconds. To be able to deliver a message reliably within two seconds, after an unexpected event, requires extraordinary engineering and facilities. For a wireless system, this time constraint and demand for reliability argues, we believe, in favor of licensed, exclusive-use spectrum. Reliability is enhanced if the radio frequency is clear and fully dedicated to the licensee's use.

For these reasons, Sensus believes that quality of spectrum is more important than quantity. Sensus urges that if the FCC allocates spectrum to smart grid use, the spectrum be licensed exclusive-use and, in the interests of fairness and consistent with FCC practice, allocated through an auction process. As stated in our prior written comments Sensus believes that a total allocation of one MHz of spectrum is more than enough to support two or three smart grid networks operating in the same geographic area.

Sensus notes that one or two other commenters claim to need large amounts of spectrum to conduct video camera monitoring of electric substations and for other uses. So far, Sensus has not seen any significant demand from electric utilities for such a bandwidth intensive service. Further, Sensus submits that video monitoring is not a true smart grid service, but an ancillary service. Sensus urges that any spectrum allocation to smart grid be strictly limited to such use and not become a back-door allocation to WiMAX or other non-smart grid applications. WiMAX and other broadband applications are best addressed in the Commission's other, ongoing dockets devoted specifically to those services.

If Sensus can provide any further information about smart grid operations, please do not hesitate to call.

Very truly yours,



Julian P. Gehman
On behalf of Sensus USA Inc.